

WLAN 802.11 a/b/g/n and *Bluetooth*® v4.0 BLE Module

FEATURES

- IEEE 802.11 a/b/g/n Wi-Fi
- Typical WLAN Transmit power:
 - +12.5dBm, 65Mbps, OFDM (n), 2.4 GHz
 - +18.3dBm, 11Mbps, CCK (b), 2.4 GHz
 - +13.5dBm, 65Mbps, MCS7 OFDM (a), 5.8 GHz
 - +17.8dBm, 9Mbps OFDM (a), 5.8 GHz
- Typical WLAN Receiver sensitivity:
 - –72dBm, 65Mbps, OFDM (n), 2.4 GHz
 - –88dBm, 11Mbps, CCK (b), 2.4 GHz
 - –70dBm, 65Mbps, MCS7 OFDM (a), 5.8 GHz
 - –87dBm, 9Mbps OFDM (a), 5.8 GHz
- *Bluetooth*® v4.0 with Bluetooth Low Energy (BLE)
- *Bluetooth* Power class 1.5
- Best-in-class WLAN and *Bluetooth* Coexistence Technology on a Single-chip
- Enhanced Low Power (ELP™) Technology for Extended Battery Life
- On module 38.4MHz Reference Oscillator, DC-DC Voltage Regulation, and U.FL Coaxial
- Pre-integration With TI's AM335x (ARM Cortex-A8) Platform and Others with a COM Connector
- Software Upgradable for ANT
- Dimensions: 18 mm x 13 mm x 1.9 mm
- Cost Saving Module Level Certification Accepted Worldwide:
 - FCC (USA), IC (Canada), and CE (Europe)
 - Antenna Options: Off-module Certified Chip Antenna, or Off-module U.FL to Certified Dipole
- Industrial Temperature Range: –40°C to 85°C

APPLICATIONS

- Consumer Electronics
- Smart Energy
- Industrial
- Medical
- Security
- Video and Imaging

DESCRIPTION

The following product brief applies to LS Research Wi-Fi + Bluetooth module, series name: Type TiWi5. The Wi-Fi + *Bluetooth* chip used is the WL1273 from Texas Instruments.

The WL1273-TiWi5 is a fully-integrated high performance module offered by LS Research using TI's single-chip WL1273 Dual Band (2.4 GHz and 5 GHz) IEEE 802.11 a/b/g/n and *Bluetooth* v4.0 BLE Transceiver. Based on TI's 6th generation Wi-Fi technology and 7th generation *Bluetooth* technology, the solution provides best-in-class coexistence capabilities coupled with TI's Enhanced Low Power (ELP™) technology. The WL1273-TiWi5 is provided as a module to help customers reduce development time, lower manufacturing costs, save board space, ease certification, and minimize RF expertise required. For evaluation and development, platforms are available which integrate the WL1273-TiWi5 module, Linux Wi-Fi drivers, BlueZ *Bluetooth* stack, and sample source applications running on a TI host processor (AM335x).

The full specification and purchasing of the WL1273-TiWi5 module can be found on the LS Research website (<http://www.lsr.com/wireless-products/tiwi5>). The LS Research orderable part number is 450-0053. More information on TI's wireless platform solutions can be found on the Wireless Connectivity Wiki (www.ti.com/connectivitywiki).

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